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I, LEANNE MYNOTT, MANAGER EXAMINATION SUPPORT AND SALES hereby certify that annexed is a true copy of the Provisional specification in connection with Application No. 2003906173 for a patent by MILAN PILJA as filed on 10 November 2003.



WITNESS my hand this  
Seventh day of December 2004

A handwritten signature in black ink.

LEANNE MYNOTT  
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**ORIGINAL**

**PROVISIONAL SPECIFICATION FOR AN INVENTION  
ENTITLED**

Invention Title:      **AN IMPROVED DOOR CATCH**

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**The invention is described in the following statement:**

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The present invention relates to improvements in door catches and in particular improvements to door catches that can be used on cabinet doors including corner cabinet doors.

In the construction of cabinets, and in particular kitchen cabinets, it is very  
5 desirable to have an attractive finish on the outside of the cupboard door in order to improve the esthetical qualities of the room as a whole. In order to be able to provide high quality finishes many cabinet manufacturers apply a veneer of material over the cabinet structure, such as the door, where the veneer material is quite different to that from which the cabinet is constructed.  
10 In many instances the cabinet is simply constructed from "chip board" or similar inexpensive material and, the veneer is either a timber veneer or a plastics veneer.

In either case, the veneer itself, by definition, is a relatively thin layer of material and therefore can be susceptible to damage by scratching from  
15 harder materials.

In many cabinet installations, and especially in the installation of cabinets in kitchens, there is typically installed a corner cabinet unit in which the two doors are connected to each other by a hinge so that the door that is not connected to the cabinet structure is typically referred to as a "floating door". The purpose  
20 of these doors is that they allow greater access into the corner cabinet unit therefore making better use of the space within that unit.

One of the problems with such corner units is that inevitably happens is the rear of the "floating door" accidentally contacts the adjacent door or panel and the fittings or fastenings on the rear of the "floating door" can scrape or gouge  
25 across the face of the adjacent door or panel thereby causing substantial damage to the thin veneered face.

Furthermore, given the overall length of the bi-fold door system an appropriate door catch needs to be employed so that, over time, the bi-fold door system does not twist or sag due to the extra weight of the "floating door" on the hinge  
30 system.

Conventionally, magnetic catches have been employed to ensure that the "floating door" is held sufficiently to reduce the amount of sagging or twisting of the "floating door".

5 In addition it has been known to attach a roller to the rear facing surface of a bi-fold door such that when the bi-fold doors are being closed only the roller contacts the adjacent door or surface therefore reducing the amount of damage done to the veneered surface.

10 However, it is still possible for roller type attachments to cause damage to the cabinet structure in that, over time, the roller wheel can inadvertently strike the corner of the adjacent door or panel. Such corners are very susceptible to damage as this is where the two veneered surfaces meet and over time repetitive striking by the roller can damage this weak spot, ultimately resulting in the veneer lifting from the adjacent door or structure.

15 In the past, one approach has been to provide a door catch assembly, consisting of a roller unit and a catch unit, wherein the roller unit is attached to the inside surface of the "floating panel" of a bi-fold door system. The catch unit is then installed to the interior panel that the floating door abuts in the closed position. However, such an arrangement is considered to be relatively time consuming and tricky to install in that the roller unit and catch unit are  
20 required to be specifically aligned so that they may interact with each other to prevent the bi-fold door unit from sagging.

It is therefore an object of the present invention to provide an improved door catch that greatly reduces the potential for damage to occur to adjacent panels or doors.

25 It is another object of the present invention to provide an improved door catch that is easy to install.

In one form of the invention, although this may not necessarily be the only or indeed the broadest form, there is proposed an improved door catch for attachment to multiple panel covered doors wherein there is a wheel  
30 supported at an outer end of the door and adapted to interengage with a cupboard frame or side to thereby hold the door closed, characterized in that

the wheel has an outer circumference provided by a plurality of radially extending portions.

In preference, the portions are vanes that are aligned so as to be at least approximately parallel to the axis of the wheel.

- 5 In preference, the portions are each resiliently deflectable one with respect to the other.

In preference, the wheel is rotably supported by an arm which is supported by a base such that the arm is adapted to be resiliently deflectable relative to the base.

- 10 In preference, the door catch includes a body member having a base portion adapted to be secured to a vertical inner surface of a cabinet door, a projecting arm projecting from the base member and a roller pivotally mounted to the projecting arm portion for pivotal movement of the roller about an axis parallel to the plane of the cabinet door, such that in use, when the cabinet door is
- 15 being closed, the pivotally mounted roller contacts an inner surface substantially perpendicular to that of the cabinet door and the projecting arm portion is deflected such that the pivotally mounted roller urges against the substantially perpendicular inner surface to provide a resistance force against movement of the cabinet door relative to the inner surface so as to hold the
- 20 cabinet door in its closed position.

In preference, the multi-panel covered door is a bi-fold door.

In preference, the bi-fold door closes off a corner opening of a cabinet structure.

- 25 In preference, the projecting arm portion extends away from an end of the base portion at an angle of approximately 45 degrees.

In preference, the base member and projecting arm are integrally molded from plastics material.

In preference, the plastics material has resiliently deflectable properties.

In preference, the radially extending portions are tapered so they are thicker at their base.

In a further embodiment, the invention can be said to reside in a fitting for multiple panel doors which includes a base rotably supporting at least one wheel, wherein the at least one wheel has an outer circumference provided by a plurality of radially extending portions.

In preference, the radially extending portions are each resiliently deflectable one with respect to the other.

In preference, the wheel is rotably supported by an arm which is supported by a base such that the arm is adapted to be resiliently deflectable relative to the base.

In preference, the radially extending portions are in the form of vanes or paddles which are aligned so that they are deflectable about an axis which is parallel to the axis of rotation of the wheel.

By way of illustration only, an embodiment of the invention is described more fully hereinafter with reference to the accompanying drawings in which

Figure 1 is a perspective view of the improved door catch according to a preferred embodiment of the invention,

Figure 2 is a side view of the device as shown in Figure 1,

Figure 3 is an underside view of the device,

Figure 4 is a cross sectional view through A-A in Figure 3.

The door catch 10 comprises a base portion 14 and a projecting arm portion 18, to which is attached a wheel 20.

The base portion 14 has apertures 22 and 24 for receiving fastening members there through so that the door catch 10 can be securely fastened to the inside of the inside of a cabinet door.

The projecting arm 18 is set at an angle of approximately 45 degrees away from the plane of the base portion 14, such that when attached to the inside of a cabinet door the projecting arm 18 sits away from the cabinet door. The wheel 20 has a plurality of radially extending portions 30 commonly referred to as vanes or paddles. The vanes 30 have free ends 32 and each vane 30 radiates from the central portion 34 of wheel 20. The angle and distance in between each vane 30 is such that when the wheel 30 encounters a 90 degree corner 36 the vanes 30 are positioned such that they will sit, or splay either side of edge 36 so as to minimise contact with the corner itself, which is normally where the veneer faces meet.

The wheel 20 is constructed from a rubber or plastics type material that is pliable enough so that the vanes 30 can splay about edge 36 and yet does not mark any surface that it comes into contact with.

In use, when door catch 10 is securely attached to the inside of a door, in the closing operation of the door then the vanes 30 come into contact with the panel 40 which results in vanes 30 becoming splayed, which then deflects the projecting arm portion 18 away from its resting position such that it then urges roller 20 against panel 40 with sufficient pressure to hold the door in a closed position.

In the event that two multi panel doors are to abut each other, then in order to provide the equivalent of panel 40, a small block or other such flat surface may be attached to a shelf or horizontal surface within the cabinet so that the door catch 10 can interengage with it.

The base portion 14 and projecting arm portion 18 are integrally molded from a resilient plastics material such as nylon and shaked so that the projecting arm portion 18 has the ability to deflect under pressure. In contrast, the wheel 20 is constructed from relatively soft resilient plastics material.

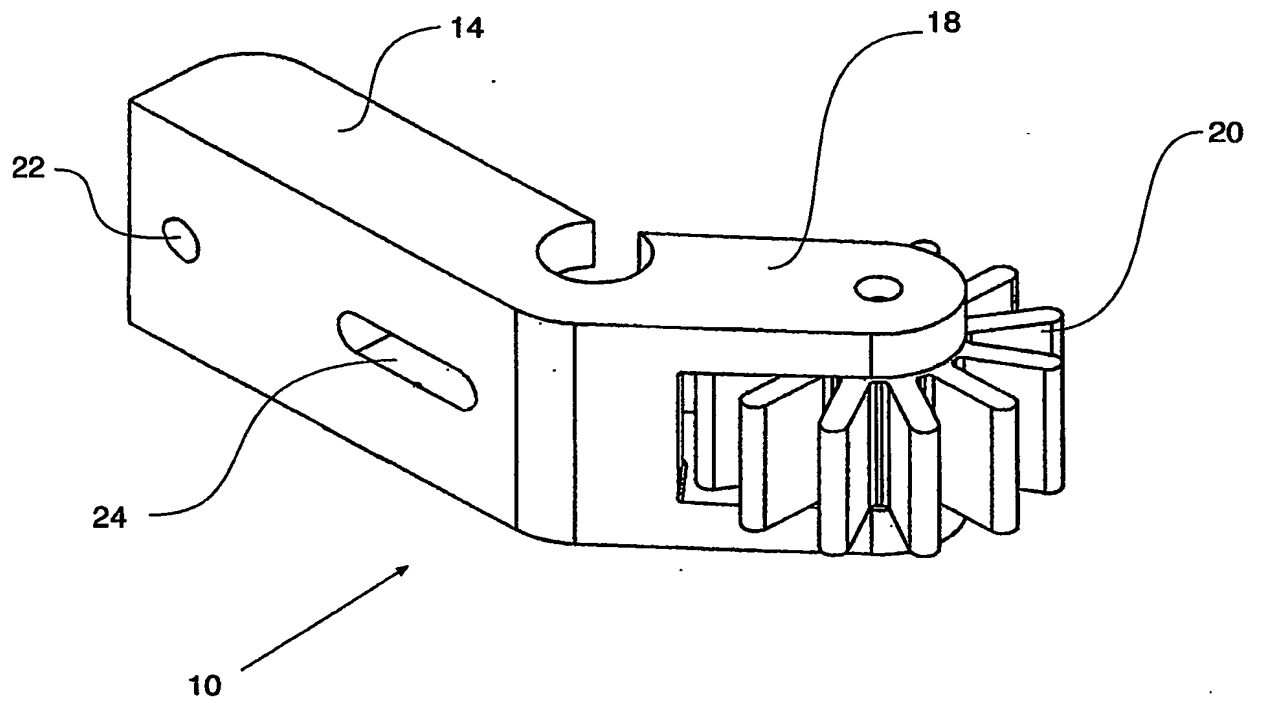
Although the invention has been herein shown and described in what is conceived to be the most practical and preferred embodiment, it is recognised that various modifications may be made in details of design and construction without departing from the scope and ambit of the invention.

Dated this 10th Day of November 2003

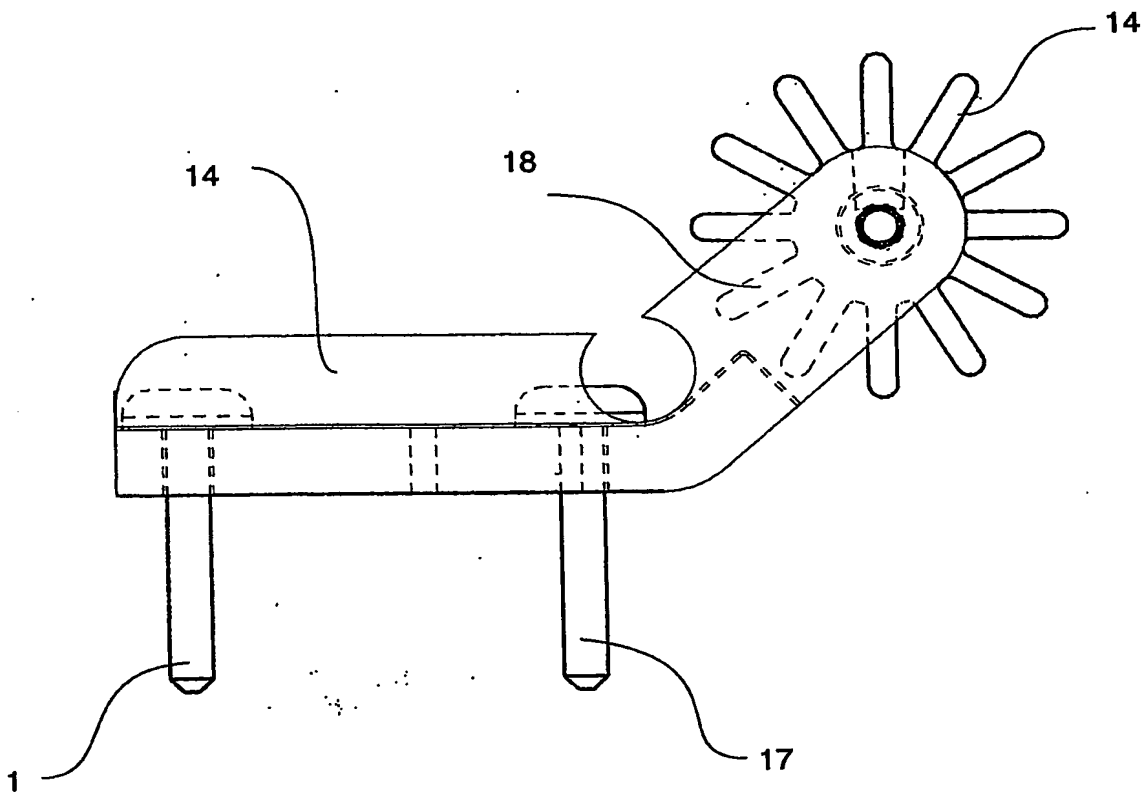
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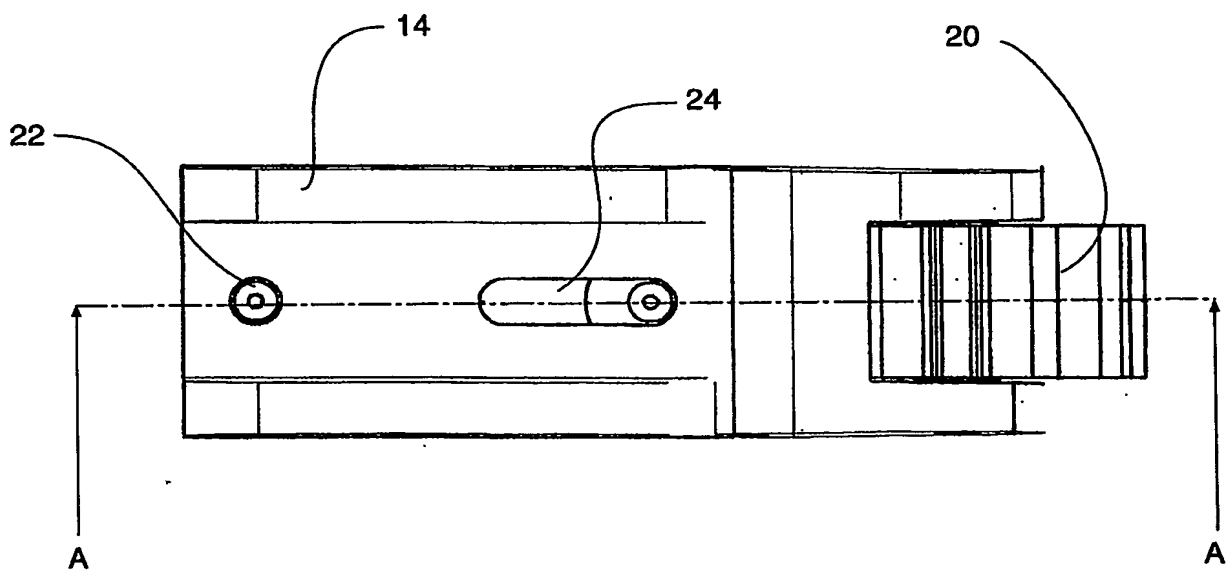


**Fig 1**



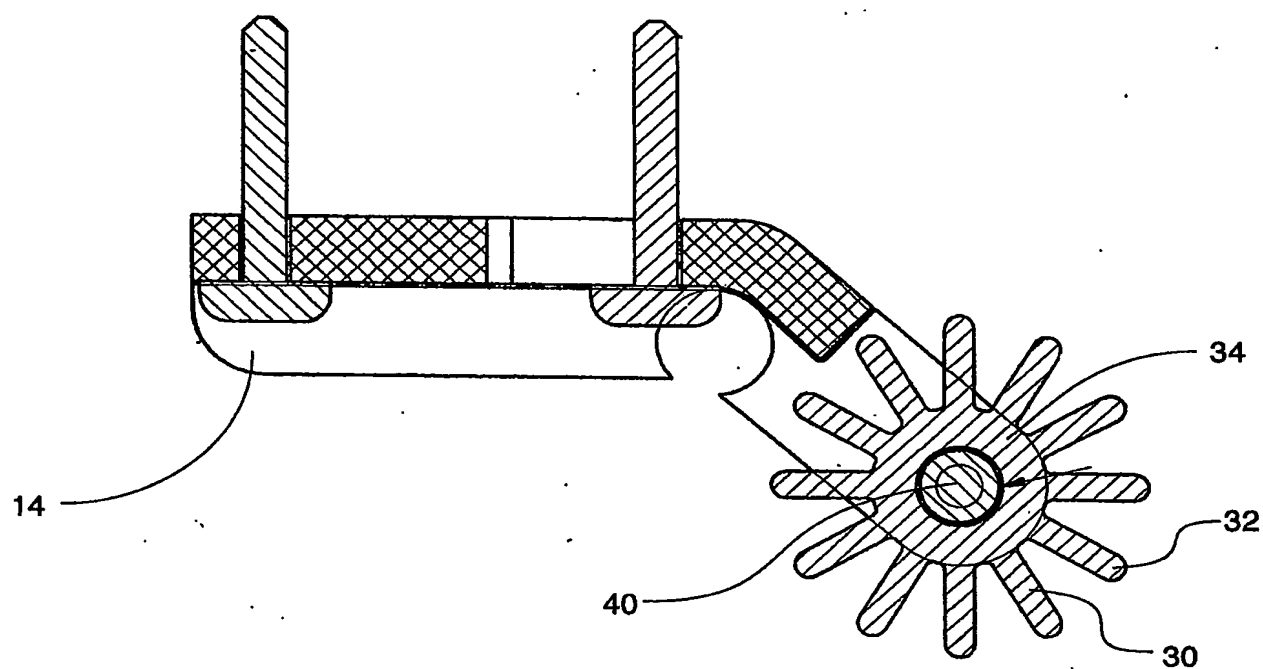
**Fig 2**

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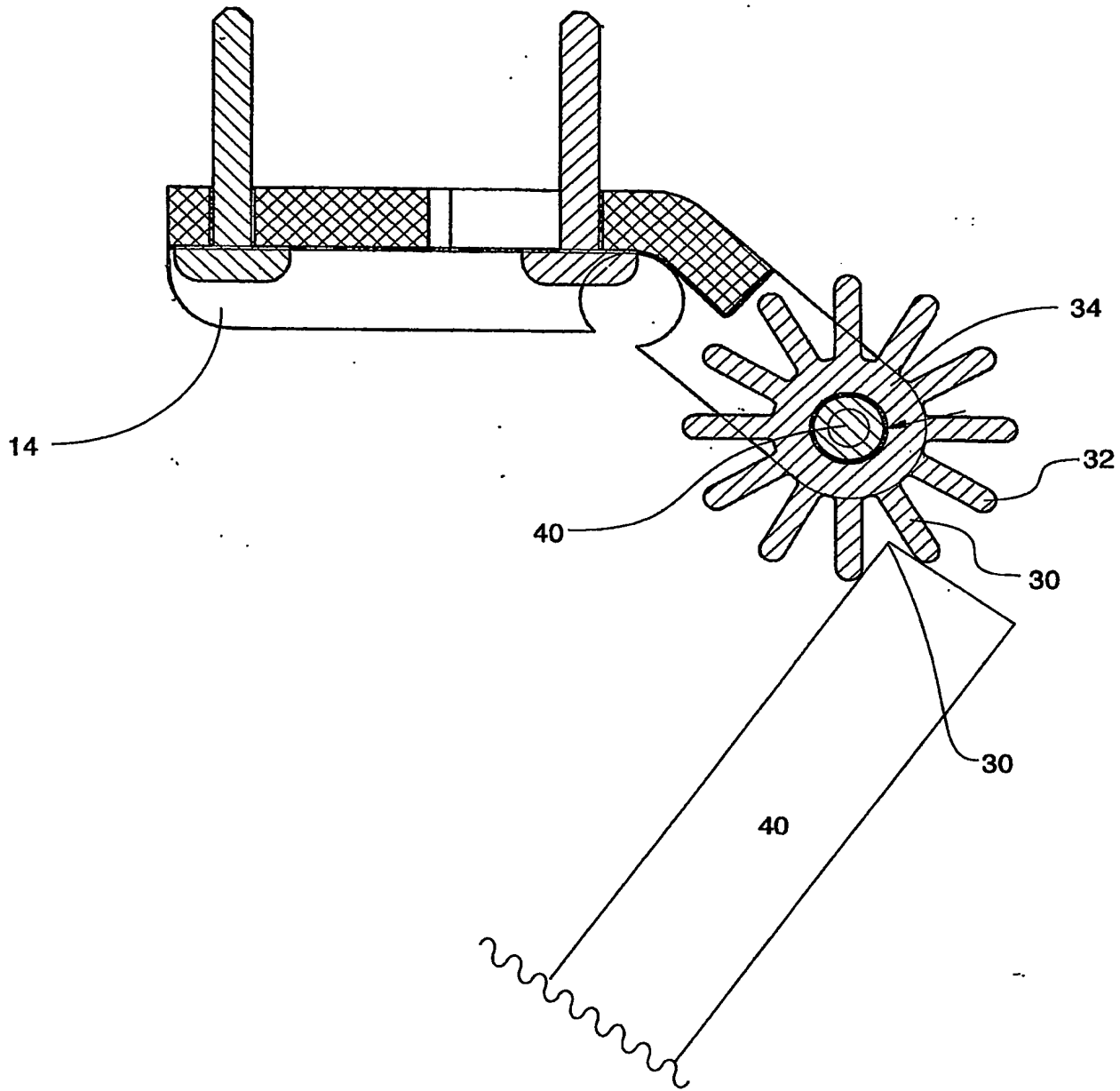
**Fig 3**

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**Fig 4**

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**Fig 5**

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